

THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY



ORIGINAL SIGNED & SEALED BY
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I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT
COPY OF ONE OF THE CONTRACT DRAWINGS FOR
STAND-BY POWER CONTRACT NO. 100-945-071
IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT
THE TIME THE SAID CONTRACT WAS EXECUTED BY
THE PARTIES.
DATE: 11/16/98 *Signature*
DATE: 11/10/98 *Signature*
ENGINEER OF DESIGN

11/17/97 ISSUED FOR BID

No. Date Revision Approved

Engineering Department
Design Division

The
World
Trade
Center

STAND-BY POWER
5 WORLD TRADE CENTER

ELECTRICAL
KEY INTERLOCK
SCHEME

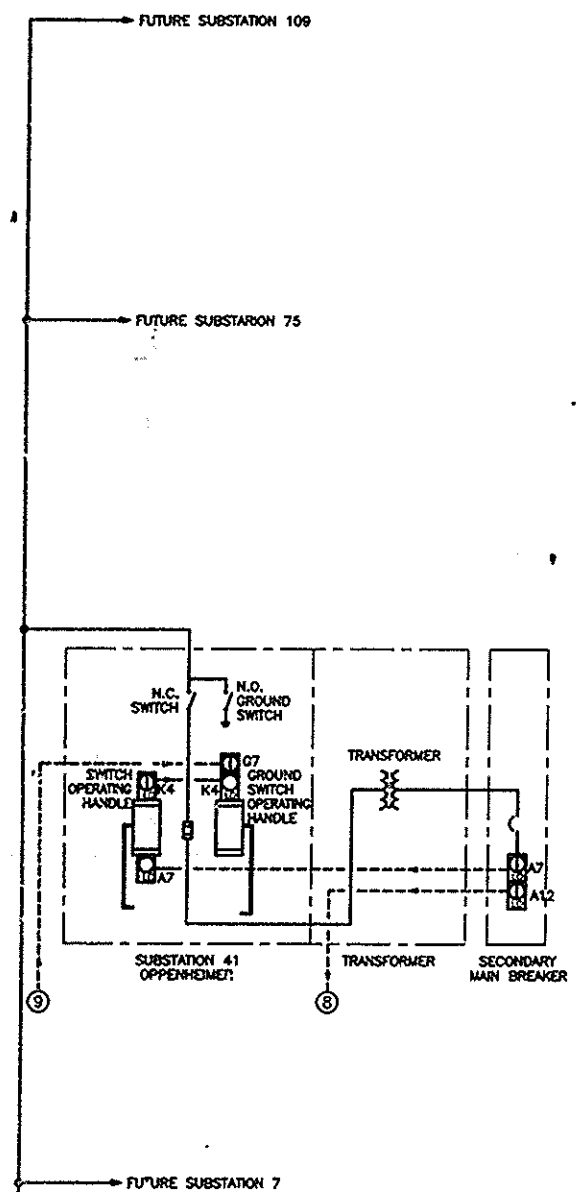
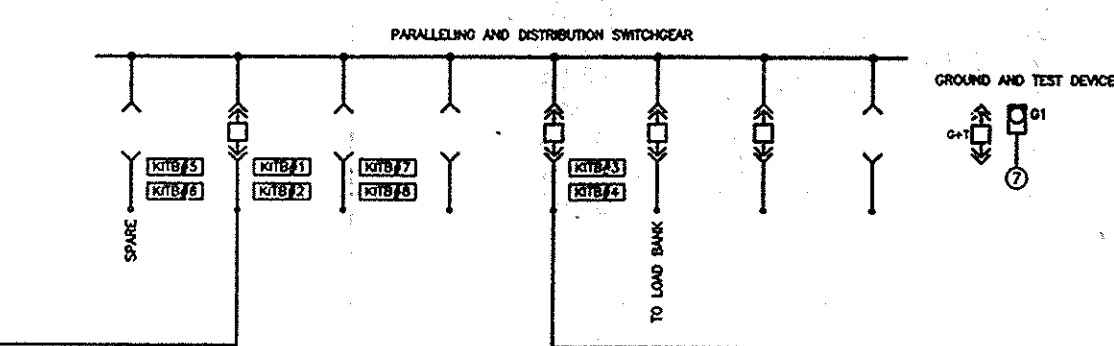
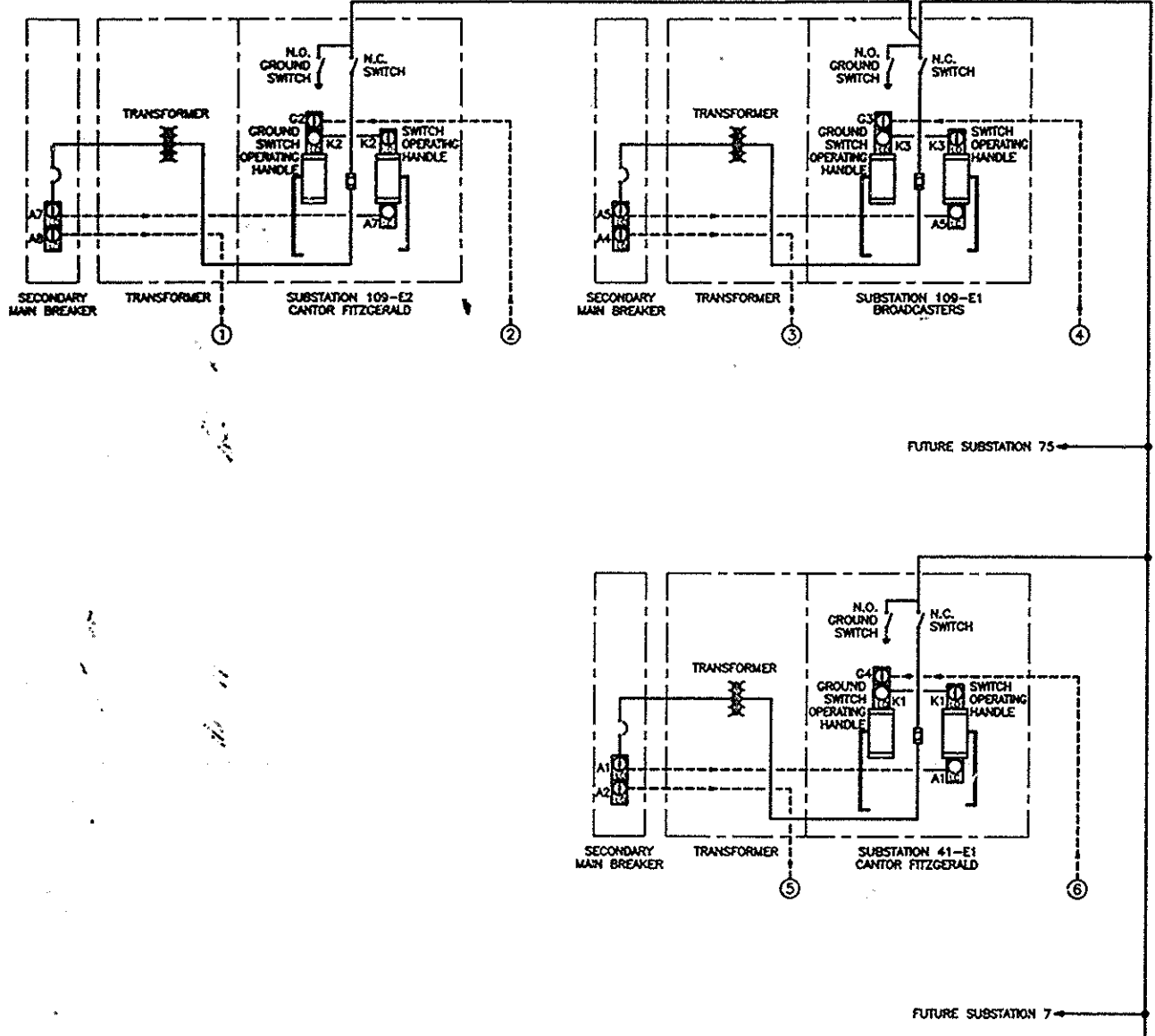
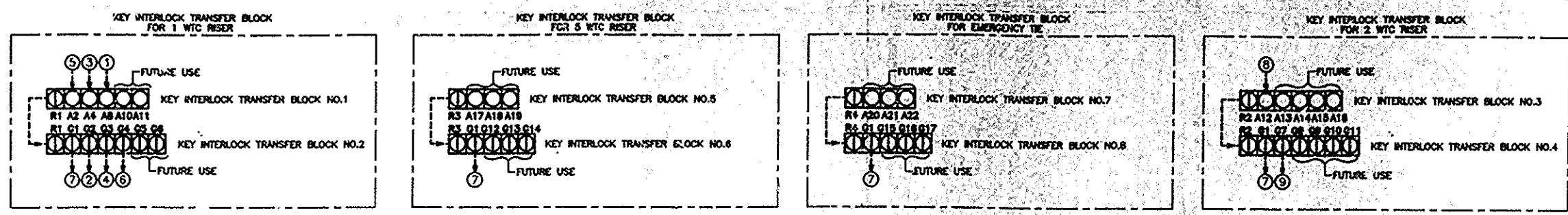
This drawing subject to conditions in contract.
All inventors, ideas, designs and methods
herein are reserved to Port Authority and
may not be used without its written consent.

B.L.M. F.O.
Designed by Drawn by Check by

Date Scale
11/17/97 NONE

Contract Number Drawing Number
WTC-945.071 E1-04

LEGEND	
○	INDICATES KEY IS REMOVED
①	INDICATES KEY IS KEPT IN LOCK
—	POWER
—	KEY INTERLOCK ROUTING
—M—	MECHANICAL INTERLOCK



**TYPICAL SUBSTATION (109E2)
INTERLOCK SCHEME**

- TO OPEN PRIMARY SWITCH
 - OPEN SECONDARY MAIN BREAKER AND LOCK OPEN. REMOVE KEY A-7 AND INSERT INTO PRIMARY SWITCH.
 - OPEN PRIMARY SWITCH.
- TO CLOSE GROUND SWITCH
 - OPEN SECONDARY BREAKER AND PRIMARY SWITCH AS IN 1. ABOVE.
 - REMOVE KEY A-7 AND INSERT INTO TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER AT PARALLELING AND DISTRIBUTION SWITCHGEAR.
 - ALL SUBSTATIONS ON THE FEEDER MUST HAVE SECONDARY BREAKERS AND PRIMARY SWITCHES OPENED, RELEASING RESPECTIVE KEYS, WHICH ARE INSERTED IN TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER.
 - WHEN ALL KEYS ARE INSERTED INTO TRANSFER BLOCK #1, KEY R-1 CAN BE REMOVED AND INSERTED INTO BLOCK #2.
 - KEY G-2 IS RELEASED WHICH CAN BE INSERTED INTO SUBSTATION GROUND SWITCH.
 - KEY K-2, WHICH WAS RELEASED WHEN THE PRIMARY SWITCH WAS LOCKED OPEN, IS INSERTED INTO THE GROUND SWITCH, ALLOWING IT TO BE CLOSED.
 - KEY G-1, ALSO RELEASED, FROM TRANSFER BLOCK #2, IS USED TO RELEASE THE G-1 DEVICE, WHICH CAN BE INSERTED INTO THE FEEDER BREAKER CUBICLE.

NOTES:

- SUBSTATIONS SS109E1, SS109E2 AND SS41E1 ARE EXISTING. EXISTING KEY INTERLOCKS ARE TO BE RETAINED.
- KEY INTERLOCK TRANSFER BLOCKS 1 AND 2 ARE EXISTING AND ARE TO BE RELOCATED FROM EXISTING BROADCASTERS SETUP TRANSFORMER.
- KEY INTERLOCK G1 IS EXISTING AND IS TO BE RELOCATED FROM EXISTING BROADCASTERS TRANSFORMER AND MOUNTED ON G-1 DEVICE.

